

CLAIMS

What is claimed is:

- 5 1. A method for predicting parts needed for a repair, comprising the steps of:
- determining an expected waste for a set of parts of a product that may be replaced during a repair of the product;
- 10 selecting the parts having a lowest expected waste for the repair.
- 15 2. The method of claim 1, further comprising the step of identifying a set of symptoms associated with the product.
- 20 3. The method of claim 2, wherein the step of determining an expected waste comprises the step of determining the expected waste in response to the symptoms.
- 25 4. The method of claim 1, wherein the step of determining an expected waste includes the step of determining a waste which is caused by unnecessarily sending a part to a repair site.
- 30 5. The method of claim 1, wherein the step of determining an expected waste includes the step of determining a waste which is caused by not sending a needed part to a repair site.

6. The method of claim 1, wherein the step of determining the expected waste includes the step of analyzing a repair history for the product.

5 7. The method of claim 6, wherein the step of analyzing a repair history includes the steps:

determining a number of times that each part was under-predicted;

10 determining a number of times that each part was over-predicted;

determining a number of times that each part was correctly predicted.

15 8. The method of claim 7, wherein the step of determining an expected waste includes the step of combining the numbers of times with a cost associated with under-predicting the parts and a cost associated with over-predicting the parts.

20 9. The method of claim 8, further comprising the step of determining the costs.

25 10. The method of claim 9, wherein the step of determining the costs includes the step of determining an average of the costs.

30 11. The method of claim 1, wherein the step of selecting the parts comprises the step of selecting the parts to be sent on an on-site repair.

12. The method of claim 1, wherein the step of selecting the parts comprises the step of selecting

the parts for which training of call qualifiers is to be upgraded.

13. The method of claim 1, wherein the step of
5 selecting the parts comprises the step of selecting the parts for which a flag is to be provided to call qualifiers.

14. The method of claim 1, wherein the step of
10 selecting the parts comprises the step of selecting the parts which are to be stocked in a repair vehicle.

15. The method of claim 1, further comprising the
15 step of determining which products are least desirable to support based on the expected wastes.

16. The method of claim 1, further comprising the
20 step of determining which personnel to target for additional training based on the expected wastes.

17. An apparatus for predicting parts needed for a repair, comprising:

means for determining an expected waste for a
25 set of parts of a product that may be replaced during a repair of the product;

means for selecting the parts having a lowest expected waste for the repair.

18. The apparatus of claim 17, wherein the means for
30 determining an expected waste comprises means for determining the expected waste in response to a set of symptoms.

19. The apparatus of claim 17, wherein the means for determining the expected waste includes means for analyzing a repair history for the product.

5 20. The apparatus of claim 19, wherein the means for analyzing a repair history comprises:

means for determining a number of times that each part was under-predicted;

10 means for determining a number of times that each part was over-predicted;

means for determining a number of times that each part was correctly predicted.

15 21. The apparatus of claim 20, wherein the means for determining an expected waste includes means for combining the numbers of times with a cost associated with under-predicting the parts and a cost associated with over-predicting the parts.